Amendments to the Claims

Kindly replace all prior listing of claims with the present listing of claims.

1.   (currently amended) A method for providing location-based event service comprising the steps of:

      a)   obtaining <u>positioning</u> information, either from a cache operable to store information indicating locations of a plurality of mobile users or querying at least one mobile positioning server, indicating a current location of the plurality of mobile users;

      b)   determining if at least one condition defined for a mobile user of the plurality of mobile users is satisfied based on the indicated current location of the mobile user; and

      c) ~~calculating~~ <u>determining a predicted time that is a prediction of the time that the mobile user will satisfy the at least one condition, occurs before the time the at least one condition actually occurs, and used to determine when to obtain new positioning information for the mobile user</u> ~~an event time and waiting until the event time has elapsed before repeating steps a) – c),~~ when the at least one condition is not satisfied, wherein ~~the calculation of the event~~ <u>predicted</u> time is based on ~~estimating a time at which the mobile user is likely to satisfy a condition based on~~ at least one of: a distance from the indicated current location of the mobile user to a region relevant to the condition, and a velocity of the mobile user.

2.   (cancelled)

3.   (currently amended) The method of claim 1, wherein the step of <u>determining a predicted</u> <u>the</u> ~~calculating the event~~ time ~~based on the selected mobile user~~ comprises the steps of:

determining a predicted the ~~calculating the~~ ~~event~~ time based on the estimated time at

which the mobile user contributes least to traffic overhead on a mobile network.

4.   (currently amended) The method of claim 3, wherein the obtaining step comprises the

steps of:

searching the cache operable to store position information indicating locations of a

plurality of mobile users;

using the position information indicating the location of the mobile user as the position

information indicating the current location of the mobile user when the position information

indicating the location of the mobile user is found in the cache; and

querying at least one mobile positioning server to obtain the position information

indicating the current location of the mobile user when the position information indicating the

location of the mobile user is not found in the cache.

5.   (original) The method of claim 4, wherein the at least one event comprises transmitting a

message.

6.   (original) The method of claim 5, wherein the message is transmitted to a mobile user.

7.   (original) The method of claim 5, wherein the message is transmitted to a non-mobile

user.

8.   (cancelled)

9.   (cancelled)

10.   (previously presented) The method of claim 4, wherein the contribution to the traffic

overhead on the mobile network relates to the locations of the plurality of mobile users and to a

time.

11.   (currently amended) A system for providing location-based event service comprising: a

processor operable to execute computer program instructions; and

a memory operable to store computer program instructions executable by the processor, for

performing the steps of:

        a)   obtaining positioning information, either from a cache operable to store

information indicating locations of a plurality of mobile users or querying at least one mobile

positioning server, indicating a current location of the plurality of mobile users;

        b)   determining if at least one condition defined for a mobile user of the plurality of

mobile users is satisfied based on the indicated current location of the mobile user; and

        c)   ~~calculating~~ determining a predicted time that is a prediction of the time that the

mobile user will satisfy the at least one condition, occurs before the at least one condition

actually occurs, and is used to determine when to obtain new positioning information for the

mobile user ~~an event time and waiting until the event time has elapsed before repeating steps a)~~

~~e),~~ when the at least one condition is not satisfied, wherein ~~the calculation of the event~~ predicted

time is based on ~~estimating a time at which the mobile user is likely to satisfy a condition based~~ ~~on~~ at least one of: a distance from the indicated current location of the mobile user to a region relevant to the condition, and a velocity of the mobile user.

12.   (cancelled)

13.   (currently amended) The system of claim 11, wherein the step of <u>determining a predicted</u> <u>the</u> ~~calculating the~~ ~~event~~ time ~~based on the selected mobile user~~ comprises the steps of:

        ~~estimating a time at which the selected mobile user is likely to satisfy a condition based~~ ~~on at least one of: a distance from a current location of the selected mobile user to a region~~ ~~relevant to the condition, and a velocity of the selected mobile user; and~~

        <u>determining a predicted the</u> ~~calculating the~~ ~~event~~ time based on the estimated time at which the ~~selected~~ mobile user contributes least to traffic overhead on a mobile network.

14.   (currently amended) The system of claim 13, wherein the obtaining step comprises the steps of:

        searching the cache operable to store<u>position</u> information indicating locations of a plurality of mobile users ~~for information indicating a location of the selected mobile user~~;

        using the <u>position</u> information indicating the location of the ~~selected~~ mobile user as the <u>position</u> information indicating the current location of the ~~selected~~ mobile user when the information indicating the location of the ~~selected~~ mobile user is found in the cache; and

        querying at least one mobile positioning server to obtain the<u>position</u> information

indicating the current location of the ~~selected~~ mobile user when the position information

indicating the location of the ~~selected~~ mobile user is not found in the cache.

15.   (original) The system of claim 14, wherein the at least one event comprises transmitting a

message.

16.   (original) The system of claim 15, wherein the message is transmitted to a mobile user.

17.   (original) The system of claim 15, wherein the message is transmitted to a non-mobile

user.

18.   (cancelled)

19.   (cancelled)

20.   (previously presented) The method of claim 14, wherein the contribution to the traffic

overhead on the mobile network relates to the locations of the plurality of mobile users and to a

time.

21.   (currently amended) A computer program product for providing location-based event service comprising:

a computer readable storage medium;

computer program instructions, recorded on the computer readable medium, executable by a processor, for performing the steps of

a)   obtaining information, either from a cache operable to store information indicating locations of a plurality of mobile users or querying at least one mobile positioning server, indicating a current location of the plurality of mobile users;

b)   determining if at least one condition defined for a mobile user of the plurality of mobile users is satisfied based on the indicated current location of the mobile user; and

c) ~~calculating~~ determining a predicted time that is a prediction of the time that the mobile user will satisfy the at least one condition, occurs before the time the at least one condition actually occurs, and used to determine when to obtain new positioning information for the mobile user ~~an event time and waiting until the event time has elapsed before repeating steps a)~~ ~~c),~~ when the at least one condition is not satisfied, wherein ~~the calculation of the event~~ predicted time is based on ~~estimating a time at which the mobile user is likely to satisfy a condition based on~~ at least one of: a distance from the indicated current location of the mobile user to a region relevant to the condition, and a velocity of the mobile user.

22.   (cancelled)

23. (currently amended) The computer program product of claim 21, wherein the step of of determining a predicted the ~~calculating the~~ event time ~~based on the selected mobile user~~ comprises the steps of:

determining a predicted the ~~calculating the~~ event time based on the estimated time at which the mobile user contributes least to traffic overhead on a mobile network.

24. (currently amended) The computer program product of claim 23, wherein the obtaining step comprises the steps of:

searching the cache operable to store position information indicating locations of a plurality of mobile users;

using the position information indicating the location of the mobile user as the position information indicating the current location of the mobile user when the position information indicating the location of the mobile user is found in the cache; and

querying at least one mobile positioning server to obtain the position information indicating the current location of the mobile user when the position information indicating the location of the mobile user is not found in the cache.

25. (original) The computer program product of claim 24, wherein the at least one event comprises transmitting a message.

26. (original) The computer program product of claim 25, wherein the message is transmitted

to a mobile user.

27.   (original) The computer program product of claim 25, wherein the message is transmitted

to a non-mobile user.

28.   (cancelled)

29.   (cancelled)

30.   (previously presented) The method of claim 24, wherein contribution to the traffic

overhead on the mobile network relates to the locations of the plurality of mobile users and to a

time.